

Instructional Technology Plan - Annually - 2016

LEA Information

A. LEA Information

1. 2014-2015 Student Enrollment

	Total Enrollment	Pre-K Enrollment	K-2 Enrollment	3-5 Enrollment	6-8 Enrollment	9-12 Enrollment	Ungraded Enrollment
Student Enrollment	18,905	763	4,416	4,211	3,916	5,446	153

2. What is the name of the district administrator entering the technology plan survey data?

Guy D. Nelson

3. What is the title of the district administrator entering the technology plan survey data?

Director of Technology

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Instructional Technology Vision and Goals

B. Instructional Technology Vision and Goals

1. Please provide the district mission statement.

The Brentwood School District, in partnership with our community, will provide an exceptional education, build character, and empower all students to reach their full potential as life-long learners in a diverse, global society.

2. Please provide the executive summary of the instructional technology plan, including vision and goals.

The Brentwood School District is committed to preparing our students to lead and innovate in a 21st century global society. Our vision is to plant seeds of greatness. Through empowerment, encouragement and high expectations, students will be challenged to utilize various aspects of educational technology in order to develop critical thinking, problem solving, and ethical awareness necessary to be a leader and innovator in a 21st century global society. This will be done through state of the art technology built on a solid technology backbone based on industry proven standards.

3. Please summarize the planning process used to develop the instructional technology plan. Please include the stakeholder groups participating and outcomes of the instructional technology plan development meetings.

The instructional technology plan has been developed as a result of various meetings and engagement with stake holders. Examples of this are committee meetings shown below.

Committee	Date
Safety and Network Technology Committee	2/1/2016
Safety and Network Technology Committee	3/7/2016
Safety and Network Technology Committee	5/9/2016
Technology Public Board Meeting	6/7/2016
Safety and Network Technology Committee	6/20/2016
Technology Committee	6/28/2016

At all meetings, membership is comprised of stakeholders such Board of Education members, Administrators (building principals and curriculum based administrators), Teachers (both classroom and support teaching staff), community members and the technology department. Ample time is given to committee members to discuss concerns, desires and expected vision for technology. In addition, technology is looked at as a unified vision that is composed of instructional needs, safety needs and administrative needs. The district is focusing it's investment on shared resources which will allow common use of networks and resources as opposed to creating separate entities which would cause more money to be expended. At these various meetings, products are demonstrated as possible solutions offered to address certain needs. In addition, there are assessments of existing technologies in use and they are assessed to determine if they are meeting current needs and whether to continue along that path. Starting in 2016/2017, we will expanding these committees to reach additional people involved in the day-to-day use of technology. This will be done with the purpose to fine tune the district's Smart Schools investment plan.

4. Please provide the source(s) of any gap between the current level of technology and the district's stated vision and goals.

- Access Points
- Cabling
- Connectivity
- Device Gap
- Network
- Professional Development
- Staffing
- Other
- No Gap Present

5. Based upon your answer to question four, what are the top three reasons causing the gap? If you chose "No Gap Present" in question four, please enter N/A.

The single largest reason for the gap is funding. The district just entered into a year in which we had a \$9 million budget shortfall. Even on state and federally sponsored initiatives, the district has to pay upfront and get reimbursed or is responsible for a portion. The next largest reason for the gap is building conditions. In many cases, the buildings need large amounts of work (e.g. electrical upgrades, A/C etc...) to support the newer technology. Finally, existing classroom technology was put in via the Excel project back in 2008 and is need of replacement to be more effective.

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Instructional Technology Vision and Goals

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Instructional Technology & Infrastructure Inventory

C. Technology and Infrastructure Inventory

1. **Please identify the capacity of the telecommunications line coming into the district network hub. The district's Regional Information Center can provide the district with this information if needed.**

- Greater than 10 Gbps
- 10 Gbps
- 1 Gbps - < 10 Gbps
- 100 Mbps - < 1Gbps
- 50 Mbps - < 100 Mbps
- 10 Mbps - < 50 Mbps
- Less than 10 Mbps

2. **What is the total contracted Internet bandwidth access for the district? Choose one.**

- Greater than 10 Gbps
- 10 Gbps
- 1 Gbps - < 10 Gbps
- 100 Mbps - < 1 Gbps
- 50 Mbps - < 100 Mbps
- 10 Mbps - < 50 Mbps
- Less than 10 Mbps

3. **What is the name of the agency or vendor from which the district purchases its primary Internet access bandwidth service?**

Eastern Suffolk Boces

4. **Please identify the capacity of the telecommunications line coming into the district's school building(s) from the district hub or district data center. The district's Regional Information Center can provide this information if needed**

	Speed in Gpbs or Mbps
Minimum Capacity	<ul style="list-style-type: none"> <input type="checkbox"/> Greater than 10 Gbps <input type="checkbox"/> 10 Gbps <input checked="" type="checkbox"/> 1 Gbps - < 10Gbps <input type="checkbox"/> 100 Mbps- < 1 Gbps <input type="checkbox"/> 50 Mbps - < 100 Mbps <input type="checkbox"/> 10 Mbps - < 50 Mbps <input type="checkbox"/> Less than 10 Mbps
Maximum Capacity	<ul style="list-style-type: none"> <input type="checkbox"/> Greater than 10 Gbps <input type="checkbox"/> 10 Gbps <input checked="" type="checkbox"/> 1 Gbps - < 10Gbps <input type="checkbox"/> 100 Mbps- < 1 Gbps <input type="checkbox"/> 50 Mbps - < 100 Mbps <input type="checkbox"/> 10 Mbps - < 50 Mbps <input type="checkbox"/> Less than 10 Mbps

5. **Please identify the minimum and maximum circuit speeds at which the classrooms in the district are connected to the school building wiring/network closet.**

	Please provide the speed at which classrooms are connected to building wiring/network closet.
Minimum Circuit Speed Within a School Building	<ul style="list-style-type: none"> <input type="checkbox"/> Greater than 10 Gbps <input type="checkbox"/> 10 Gbps <input type="checkbox"/> 1 Gbps - < 10Gbps

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Instructional Technology & Infrastructure Inventory

	Please provide the speed at which classrooms are connected to building wiring/network closet.
	<input checked="" type="checkbox"/> 100 Mbps- < 1 Gbps <input type="checkbox"/> 50 Mbps - < 100 Mbps <input type="checkbox"/> 10 Mbps - < 50 Mbps <input type="checkbox"/> Less than 10 Mbps
Maximum Circuit Speed Within a School Building	<input type="checkbox"/> Greater than 10 Gbps <input type="checkbox"/> 10 Gbps <input type="checkbox"/> 1 Gbps - < 10Gbps <input checked="" type="checkbox"/> 100 Mbps- < 1 Gbps <input type="checkbox"/> 50 Mbps - < 100 Mbps <input type="checkbox"/> 10 Mbps - < 50 Mbps <input type="checkbox"/> Less than 10 Mbps

6. What are the minimum and the maximum port speeds of the switches that are less than five years old in use in the district?

	Port speed of switches	Mbps or Gbps
Minimum Capacity of Switches	10	<input checked="" type="checkbox"/> Mbps <input type="checkbox"/> Gbps
Maximum Capacity of Switches	1	<input type="checkbox"/> Mbps <input checked="" type="checkbox"/> Gbps

7. What percentage of the district's wireless protocols are less than 802.11g?

0

8. Do you have wireless access points in use in the district?

- Yes
- No

8a. What percentage of your district's instructional space has wireless coverage?

60

9. Does the district use a wireless controller?

Yes

10. How many computing devices less than five years old are in use in the district?

	Number of devices in use that are less than five years old	How many of these devices are connected to the LAN?
Desktop computers/Virtual Machine (VM)	850	850
Laptops/Virtual Machine (VM)	16	16
Chromebooks	0	0
Tablets less than nine (9) inches with access to an external keyboard	0	0
Tablets nine (9) inches or greater with access to an external keyboard	1,000	1,000
Tablets less than nine (9) inches without access to an external keyboard	0	0
Tablets nine (9) inches or greater without access to an external keyboard	0	0
Totals:	1,866	1,866

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Instructional Technology & Infrastructure Inventory

11. **What percentage of students with disabilities in the school district, as of the submission date of this technology plan, have assistive technology documented on their Individual Education Plan (IEP)?**

8

12. **Please describe any additional assistance or resources that, if provided, would enhance the district's ability to improve access to technologies for students with disabilities.**

Teachers in a 21st century learning environment face many challenges. Among them are an ever changing landscape of assistive devices as well as assistive software. In order to accomplish this, network infrastructure absolutely must be upgraded to the point where it anticipates future growth. In 2016, the life-expectancy of network devices as well as assistive devices and any software that they run is a shorter window. As a direct result, expansion needs to be considered when making critical upgrades to avoid fork-lift replacements of million dollar investments. Additionally, as education moves to a more business model, teachers are left short in terms of training and professional development to assist in technology to address individual student needs. More funds need to be allocated to BOCES to fill necessary gaps such as technology integration specialists who specialize in training teaching staff to not only use existing technology but to also be able to adapt to the yearly changes in mandates and 21st century learning initiatives.

13. **How many peripheral devices are in use in the district?**

	Number of devices in use
Document Cameras	282
Flat Panel Displays	152
Interactive Projectors	0
Interactive Whiteboards	105
Multi-function Printers	25
Projectors	124
Scanners	15
Other Peripherals	0
Totals:	703

14. **If a number was provided for "Other Peripherals" please specify the peripheral device(s) and quantities for each.**

(No Response)

15. **Does your district have an asset inventory tagging system for district-owned equipment?**

Yes

16. **Does the district allow students to Bring Your Own Device (BYOD)?**

No

17. **Has the school district provided for the loan of instructional computer hardware to students legally attending nonpublic schools pursuant to Education Law, section 754?**

Yes

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Instructional Technology & Infrastructure Inventory

18. What barriers may prevent the district from testing 100% of its grade 3-8 students and NYSAA students on computers by the year 2020?

- Insufficient number of devices meeting testing requirements
- Lack of reliable Internet service
- Insufficient broadband access
- Inadequate staffing levels
- Insufficient testing spaces
- District does not foresee any barriers
- Other

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Software and IT Support

D. Software and IT Support

1. **What are the operating system(s) in use in the district?**

	Is this system in use?
Mac OS Version 9 or earlier	No
Mac OS 10 or later	Yes
Windows XP	No
Windows 7.0	Yes
Windows 8.0 or greater	Yes
Apple iOS 7 or greater	Yes
Chrome OS	Yes
Android	Yes
Other	No

2. **Please provide the name of the operating system if the response to question one included "Other."**

(No Response)

3. **What are the web browsers, both available and supported, for use in the district?**

	Web Browsers available and supported for use
Internet Explorer 7	No
Internet Explorer 8	No
Internet Explorer 9 or greater	Yes
Mozilla Firefox	No
Google Chrome	Yes
Safari (Apple)	Yes
Other	No

4. **Please provide the name of the web browser if the response to question three included "Other."**

(No Response)

5. **Please provide the name of the Learning Management System (LMS) most commonly used in the district. A Learning Management System (LMS) is a software application for the administration, documentation, tracking, reporting, and delivery of online and blended learning courses.**

Currently the district does not use a Learning Management System

6. **Please provide the names of the five most commonly used software programs that support classroom instruction in the district.**

Scholastic Suite including ReadAbout, Read180, Expert21
 Rosetta Stone
 Learning A-Z
 ThinkCentral
 Castle Learning

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Software and IT Support

7. Please provide the names of the five most frequently used research databases if applicable.

BrainPop
 Digital Media Library
 CultureGrams
 Proquest
 Worldbook

8. Does the district have a Parent Portal?

Yes

8a. Check all that apply to the Parent Portal if the response to question eight is "Yes."

- Attendance
- Homework
- Student Schedules
- Grade Reporting
- Transcripts
- Other

8b. If 'Other' was selected in question eight (a), please specify the other feature(s).

The district loads up assessment information and makes that available to parents

9. What additional technology-based strategies and tools, besides the Parent Portal, are used to increase parent involvement?

- Learning Management System
- Emergency Broadcast System
- Website
- Facebook
- Twitter
- Other

10. Please list title and Full Time Equivalent (FTE) count (as of survey submission date) of all staff whose primary responsibility is providing technical support. Does not include instructional technology integration FTE time.

Title	Number of Current FTEs
Coordinator of Information Technology	0.50
IT Support Staff	13.00
	13.50

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Curriculum and Instruction

E. Curriculum and Instruction**1. What are the district's plans to use digital connectivity and technology to improve teaching and learning?**

Digital technology exists throughout the district in the form of computers, interactive white boards, laptops, and tablet devices. All of the devices are critical in enhancing lessons as well as bringing the outside world into the everyday classroom. With this basis, the plan is to include interactive boards with multi points of touch in every classroom. This will also allow our teachers to take full advantage of all online content that is currently supplied through textbook vendors and other instructional software titles. In recognizing the importance of connectivity, the district just signed on to increase our external bandwidth to 2GB/s as well as finalizing plans to use Smart School bond money to upgrade our internal network to support a 40GB/s network backbone. This is a requirement to provide ever changing instructional content such as the expanding array of media based lessons that will engage our students and prepare them for the 21st century world in which they will participate

2. Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials, and assessments?

Yes

2a. If "Yes", please provide detail.

Extensive evaluation is conducted to identify and ensure the best assistive technology devices as well as the most effective software for each case within special education. The district develops specific educational programs for all students with disabilities based on the evaluation process. These students span all areas of disabilities such as limited speech and any developmentally disabled scenarios. Ultimately, all recommendations as specified in a student's Individual Education Plan (IEP) that deal with technology are implemented using the technology and the software that result from the evaluation process. Please note that these steps are followed for both in district as well as out of district students served by the school district

3. Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?

Yes

3a. If "Yes", please provide detail.

The district ensures access and participation to the general curriculum through various methods for students with disabilities. For example, we employ sound field systems for situations when an actual computing device will not necessarily be called for. Additionally, in many instances, the district employs computer based devices to ensure the students' participation in the curriculum. Examples of such devices that have been used and will continue to be used are laptops as well as android and iOs tablet devices. All are fully integrated into the district's technology network to ensure full use of the district resources stored on network servers as well as any web based tools that are required for the education of students with disabilities

4. Does the district's instructional technology plan address the needs of English Language Learners to ensure equitable access to instruction, materials, and assessments?

- Yes
 No

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Curriculum and Instruction

4a. Please provide details. If the district plans to apply for Smart School Bond Act funds for Classroom Learning Technology, the answer to this question must be aligned with the district's Smart Schools Investment Plan (SSIP).

The Brentwood Union Free School District believes that all students shall have equitable access to educational and informational systems. Hence it is committed to supporting the use of technology to enhance the education of more than 5,000 English Language Learners in the District.

Our English Language Learners and their teachers use technology to support individual educational programs, which may include projects, regular classroom assignments, writing portfolio development, computer-based research, instruction and evaluation. Students and teachers have access to a range of programs that provide individualized instruction and also feedback to the teachers of student abilities and progress. Additionally, Entering level ELL students have access to the language software, Rosetta Stone.

BUFSD has improved two-way communication between home and school by enhancing and developing the District website. Our parent portal has been updated to improve home school communication allowing parents access to their child's assignments, grades, and assessment information.

Our district has begun the installation of interactive whiteboards at the secondary level in the classrooms assigned to Bilingual and English as New Language teachers. This new type of hardware is making an impact in the instruction of our secondary level students. Teachers can bring the "outside world" to the classroom. Images provide contextual clues and help ELL students determine meaning of text/context. Videos can be presented to provide scaffold instruction and built background knowledge. Furthermore, *Document cameras* have also been purchased to allow teachers to write notes on the projected images, work on word math problems and present manipulatives; thus creating an interactive learning environment.

A plethora of educational web based educational subscriptions have been renewed to offer ways to help ELL students build vocabulary, achieve fluency, improve comprehension and access curriculum. These sites incorporate audio, visual and home language support in the district's ENL, math and ELA curriculum. Most programs include support to help ELLs learn vocabulary with the use of videos, pictures, glossaries and direct translations. The following is a list of mostly used web based programs by Bilingual and ENL teachers: Reading A-Z, Raz-kids, Science A-Z, ESL A-Z, Starfall, Rosetta Stone, Brain Pop, SYSTEM 44, NEWESLA, Gizmos, READ 180, Reading Inventories HMH, Read About, eSchool and INSIDE by National Geographic.

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Professional Development

F. Professional Development

- Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience, and method of delivery within your summary.**

Ongoing Professional Development and training has been provided to familiarize teachers in the use of computer-based literacy programs, online databases, student response systems, as well as other technology equipment designed to raise academic achievement. In an effort to develop 21st Century skills and learning environments, the District has begun to create learning practices and physical environments that will bolster the teaching and learning of these crucial skills.

The classroom has been the essential and fundamental learning space station and the focus of our integration. We have trained teachers to use a variety of software and rich digital and online curricular resources to monitor students' Lexile reading growth, match students to text, and differentiate instruction. Scholastic consultants in particular have trained teachers in the set-up and implementation of several computer-based literacy programs (Read 180, Expert 21, System 44, and ReadAbout) designed to accelerate the development of students' literacy skills. These breakthrough adaptive technologies have provided teachers with the support needed to improve the reading comprehension and vocabulary development of all student learners. Because the computer-based programs offer continuous student assessment and real-time reporting, teachers have been trained in how to monitor students' reading progress over time. Teachers have been trained in how to use the Scholastic Achievement Manager (SAM) to gather, analyze, and interpret reports, so they can adjust their literacy instruction to meet the individual literacy needs of students.

In addition to adaptive technology, the District purchased many online subscriptions (Castle Learning, RAZ Kids, Reading and Science A-Z, Newsela, and Expert Space) and provided training, so they could provide our students with opportunities to read, explore, discover, collaborate, and connect to the content in their core disciplines in an engaging manner. Workshops were also provided to show teachers how to utilize the student performance components to obtain meaningful data on students' readiness or achievement in regard to specific learning objectives.

Finally, teachers have been trained in how to effectively integrate tools that promote interactive learning, higher level thinking skills, and engagement across the content areas. Teachers have been taught how to use interactive whiteboards, digital content and resources, and computers to create new learning environments. Office application software and on-line digital platforms such as Turnitin.com, an online grading and peer review platform, is giving teachers access to standards-aligned grading tools as well as the opportunity to provide feedback to students in a timely manner.

The body of literature clearly indicates that professional learning is an essential key to the success of technology-integration programs. The District will continue to provide teachers with comprehensive, on-going, and job embedded professional development to support the development of 21st Century learning environments in our schools.

- Please list title and Full Time Equivalent (FTE) count (as of survey submission date) of all staff whose primary responsibility is delivering technology integration training and support for teachers. Does not include technical support.**

Title	Number of Current FTEs
Library Media Specialists	7.00
Teaching Assistants	14.40
Coordinator of Technology	0.50
ESB Tech Int. Specialist	0.44
	22.34

Instructional Technology Plan - Annually - 2016

Technology Investment Plan

G. Technology Investment Plan

1. Please list the top five planned instructional technology investments in priority order over the next three years. Infrastructure is considered an instructional technology investment.

	Anticipated Item or Service	Estimated Cost	Is Cost One-time, Annual or Both?	Funding Sources May choose more than one source
1.	Interactive Displays/Projectors/Whiteboards	2,200,000	One Time	<input type="checkbox"/> BOCES Co-Ser Purchase <input type="checkbox"/> District Operating Budget <input type="checkbox"/> District Public Bond <input type="checkbox"/> E-Rate <input type="checkbox"/> Grants <input type="checkbox"/> Instructional Material Aid <input type="checkbox"/> Instructional Resources Aid <input checked="" type="checkbox"/> Smart Schools Bond Act <input type="checkbox"/> Other
2.	Wi-Fi	1,000,000	One Time	<input type="checkbox"/> BOCES Co-Ser Purchase <input type="checkbox"/> District Operating Budget <input type="checkbox"/> District Public Bond <input checked="" type="checkbox"/> E-Rate <input type="checkbox"/> Grants <input type="checkbox"/> Instructional Material Aid <input type="checkbox"/> Instructional Resources Aid <input type="checkbox"/> Smart Schools Bond Act <input type="checkbox"/> Other
3.	Network Cabling	300,000	One Time	<input checked="" type="checkbox"/> BOCES Co-Ser Purchase <input type="checkbox"/> District Operating Budget <input type="checkbox"/> District Public Bond <input type="checkbox"/> E-Rate <input type="checkbox"/> Grants <input type="checkbox"/> Instructional Material Aid <input type="checkbox"/> Instructional Resources Aid <input checked="" type="checkbox"/> Smart Schools Bond Act <input type="checkbox"/> Other
4.	Other	4,000,000	One Time	<input type="checkbox"/> BOCES Co-Ser Purchase <input type="checkbox"/> District Operating Budget <input type="checkbox"/> District Public Bond <input checked="" type="checkbox"/> E-Rate <input type="checkbox"/> Grants <input type="checkbox"/> Instructional Material Aid <input type="checkbox"/> Instructional Resources Aid <input checked="" type="checkbox"/> Smart Schools Bond Act <input type="checkbox"/> Other
5.	Other	5,000,000	One Time	<input type="checkbox"/> BOCES Co-Ser Purchase <input type="checkbox"/> District Operating Budget <input type="checkbox"/> District Public Bond <input type="checkbox"/> E-Rate <input type="checkbox"/> Grants <input type="checkbox"/> Instructional Material Aid <input type="checkbox"/> Instructional Resources Aid <input checked="" type="checkbox"/> Smart Schools Bond Act

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Technology Investment Plan

	Anticipated Item or Service	Estimated Cost	Is Cost One-time, Annual or Both?	Funding Sources May choose more than one source
				<input type="checkbox"/> Other
Totals:		12,500,000		

2. If "Other" was selected in question one, for items purchased or for a funding source, please specify.

1. Complete network back-bone upgrade (\$4,000,000). This upgrade will take us to a 40GB backbone in all of the instructional buildings as well as build in redundancy for points-of-failure. This upgrade will replace all switches, core routers and give us the ability to support existing services as well as the newer online instructional software that will need to be adopted. It will also allow us to support the eventuality of CBT to be introduced by the year 2020.
2. Overhaul of district security systems (\$5,000,000). Currently, our security solution is at end-of-life and needs complete replacement. This will encompass video surveillance as well as intrusion detection and emergency notification systems to be in compliance with all terrorist mandates and to ensure that instructional staff can effect learning for the student population in the 21st century in a safe environment.

Instructional Technology Plan - Annually - 2016Status of Technology Initiatives and Community Involvement

H. Status of Technology Initiatives and Community Connectivity

1. **Please check any developments, since your last instructional technology plan, that affect the current status of the technology initiatives.**

- Changes in District Enrollment
- Changes in Staffing
- Changes in Funding
- Technology Plan Implementation
- Computer-based Testing
- Catastrophic Event
- Developments in Technology
- Changes in Legislation
- Other
- None

2. **In this section, please describe how the district plans to increase student and teacher access to technology, at home and in the community.**

The district continues with its hybrid cloud based model that was started in previous years. This allows all instructional participants to access all district software remotely by logging into their desktop. In addition, the district will continue to use eRate monies as well as Smart Schools monies to upgrade its technology. Unfortunately, this year we had issues that resulted from funding issues both locally and federally. As such, planned upgrades for 2016/2017 have been affected. The district will continue to address these needs during each cycle that is available for the programs such as eRate priority 2 funding and any additional avenues that are available to us.

3. **Please check all locations where Internet service is available to students within the school district's geographical boundaries.**

- Home
- Community
- None

- 3a. **Please identify categories of available Internet locations within the community.**

All areas in the community which have wifi access such as Starbucks, McDonalds and other businesses will afford the educational community the opportunity to access our services from devices such as laptops and tablets. Additionally, access can be obtained through hard-wired locations such as the Public Library.

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Instructional Technology Plan Implementation

I. Instructional Technology Plan Implementation

- Please provide the timeline and major milestones for the implementation of the technology plan as well as the action plan to integrate technology into curriculum and instruction to improve student learning.**

Area	Current Status	Adjusted Timeline	Desired Outcome
Districtwide WiFi	Continuing	17/18 School year	Expanded penetration of wireless coverage
Additional Interactive Boards	Added approximately 75 boards in 15/16	Continuing to add in 16/17 via NYS funding and Smart Schools	Interactive board in every classroom
Desktop virtualization	Completed in 2015/2016	N/A	Increased the life expectancy of over 1000 desktops
Network upgrade	Postponed due to eRate funding issues	17/18 School year	Once eRate priority 2 funds are approved, upgrade core network infrastructure
Replace aging laptops with tablet type devices	Piloting Dell books running windows 10	16/17 School year	Once the initial pilot group is used successfully, expand the deployment of these sub \$300 devices to additional areas
Software Piloting	15/16 Software was evaluated. The district has moved forward with adopting Science A-Z and now is continuing with new software such as Aleks, iReady and others	16/17,17/18 School year	Continual evaluation of the best possible software and adoption where appropriate

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Monitoring and Evaluation

J. Monitoring and Evaluation

- Please describe the proposed strategies that the district will use to evaluate, at least twice a year, whether the district's instructional technology plan is 1) meeting the vision and goals as outlined in the plan and 2) making a positive impact on teaching and learning in the district.**

With the stated goals, the district plans an extensive evaluation process. The primary evaluation is through the district technology committee. With the newly issued guidance regarding Smart Schools in the 15/16 school year, the district has been faced with restructuring the technology committee to include newly required stake holders. With the additional changes in administration, this revamped committee is at the heart of developing the plan and as such, they would be the best to determine how effective the roll-out is. The district has already had several meetings in which the community has been invited to express concerns and desires on the original plan.

During the 2015/2016 school year, we have evaluated the rollout of the Virtual Desktop Initiative and finalized all settings. We based that on meetings with teachers, evaluation by outside professionals as to metrics obtained over set periods of time and addressed any "red flags". At this time we will continue evaluation.

As with previously piloted software, trainings will be scheduled within first few weeks of school for all teachers implementing the pilot. Once the pilot begins, there will be ongoing evaluation based on many criteria. These evaluations will be brought back to the various committees. Examples of criteria will be things such as alignment to Common Core, digital resources, compatibility with existing and proposed future hardware and availability of Spanish language integration. By mid-year, recommendations will start to be formed as to either adoption of any of the piloted programs or recommendations for further piloting of other software.

Continuing in 2016, we will be adding additional devices such as tablets, notebooks, interactive boards and additional classroom tools as outlined in the previous sections. Additionally, the year one initiatives that will potentially add additional instructional software will necessitate the start of upgrading our core network components that drive all edge devices. As a result we will continue to be evaluating the network devices through the process of automated software to ensure that the network components are not exhibiting any bottlenecks. This technique was critical at the beginning of the 2015/2016 school year to help us identify i/o bottlenecks in the virtualization environment. We will be expanding automated reports to alert us to spikes in network usage as well as regularly scheduled reports that will allow us to develop trend data. These types of evaluation tools will allow us to ensure a smooth implementation of the new classroom based technology since we can proactively avoid any performance issues. Software such as Paessler and VmWare Horizon will be used on an ongoing basis. All of these evaluation tools and techniques will be employed and used as the district moves forward not only through the time-frame of this plan (2015-2018) but, they will be used extensively in subsequent plans.

For this technology plan to be effective in ensuring 21st century learning skills, it is imperative that the school district avail itself to tools that traditionally were considered business level only. The introduction of the monitoring tools as mentioned above will go a long way to ensuring a "Data Driven" technology plan.

- Please fill in all information for the policies listed below.**

	URL	Year Policy Adopted
Acceptable Use Policy -- AUP	www.brentwood.k12.ny.us	2008
Internet Safety/Cyberbullying*	www.brentwood.k12.ny.us	2012
Parents' Bill of Rights for Data Privacy and Security	www.brentwood.k12.ny.us	2014

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Survey Feedback

K. Survey Feedback

Thank you for submitting your district's instructional technology plan (ITP) survey via the online collection tool. We appreciate the time and effort you have spent completing the ITP survey. Please answer the following questions to assist us in making ongoing improvements to the online survey tool.

1. Was the survey clear and easy to use

Yes

2. Was the guidance document helpful?

No

2a. If "No", please explain.

The guidance document in many cases was a duplicate of the brief information provided on the screens. Additionally, the guidance document should have included guidance on how to address and plan strategies for the majore funding source available to the schools in the immediate future; it should have addressed Smart Schools

3. What question(s) would you like to add to the survey? Why?

There should be a lot more attention to plant upgrades. In many cases, school buildings are extremely old and outdated. There needs to be areas that deal with electrical investment, generator power and upgrading to a secure network infrastructure. Many wiring closets were introduced into school buildings when it was OK to share space with a storage area or an art teacher. With the increased environment of zero down time to support all the initiatives, allowances must be made for assisting schools to lock down their infrastructure environment

4. What question(s) would you omit from the survey? Why?

(No Response)

5. Other comments.

(No Response)

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Appendices

Appendices

1. **Upload additional documentation to support your submission**

(No Response)